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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,444	01/18/2002	Kenneth W. Breau	1-22494	1911

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EXAMINER

CLARDY, S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 06/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/051,444

Applicant(s)
Bureau

Examiner
S. Mark Clardy

Art Unit
1616



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 18, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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Claims 1-7 are pending in this application claims the benefit under 35 USC 119(e) of US Provisional Application No. 60/334,254, filed November 30, 2001.

Applicant's claims are drawn to a treatment for the control of algae in aquatic environments comprising an algicide and one or more of the following:

pH stabilizer (claim 1)

clarifier (claim 2)

sanitizer reducer/enhancer (claim 4; e.g., chloride or bromide ions: p. 5).

Preferably, the algicide is a copper compound (p. 4); all composition examples use copper sulfate. The disclosed pH stabilizers are carbonates and bicarbonates (p. 4-5); the examples use calcium and sodium carbonate, and sodium bicarbonate.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 are rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Rounds et al (US 6,149,821). Rounds et al teaches a system for treating water comprising a buffer

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compound, an oxidizer/clarifier compound, and a biocide compound (abstract). An algicide such as a copper compound (sulfate, citrate, EDTA complex, gluconate) may be included in the system for algae control (col 3, lines 64-67). The pH stabilizer may be a buffering system including sodium carbonate and sodium bicarbonate (columns 5-6). The clarifier may be a compound such as a peroxide or persulfate (col 3, lines 32-44). Additional biocidal components include chloride or bromide (col 7, lines 32-48).

Claims 2, 4, and 5 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Denkewicz, Jr. et al (US 6,217,780). Denkewicz, Jr. et al teach biocidal water treatment compositions comprising sources of copper, zinc, and silver ions in a polymeric chitosan matrix which also serves to clarify the water (col 11, lines 29-30). The copper compounds provide the algicidal activity (col 3, lines 6-10). Among the copper salts which may be used are copper chloride and copper bromide (col 7, lines 48-62).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Rounds et al and Denkewicz, Jr. et al.

These patents have been discussed above, both pertain to water treatment systems containing copper salts and a means for clarifying the water. Denkewicz, Jr. does not teach a pH buffer.

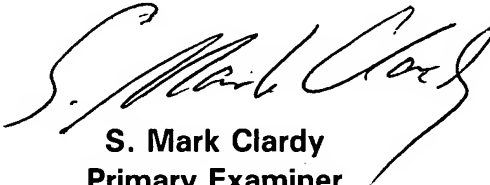
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One of ordinary skill in the art would be motivated to combine these references because the same algicidal agents are used in the compositions in both Rounds et al and Denkewicz, Jr. et al.

Thus it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have combined an algicidal agent with a pH stabilizer, a clarifier, and a sanitizer reducer/enhancer such as chloride or bromide because Rounds et al teaches that each of these components are useful in water treatment systems, and because Denkewicz, Jr. et al teach that additional components (zinc, silver, chitosan) may be used to serve the same functions as the algicidal agent and clarifier of Rounds et al.

No unobvious or unexpected results are noted; no claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.


S. Mark Clardy
Primary Examiner
AU 1616

June 25, 2003